

REMARKS

Initially, Applicants would like to express appreciation to the Examiner for the detailed Official Action provided, for the acknowledgment of Applicant's Claim for Priority and receipt of the certified copies of the priority documents, and for the acknowledgment of Applicant's Information Disclosure Statements by return of the Forms PTO-1449.

Upon entry of the above amendment, claims 9-13, 14, and 16 will have been amended, and claim 15 will have been canceled. Accordingly, claims 1-14 and 16-20 are currently pending. Claims 1-8 and 17-20 stand withdrawn from consideration by the Examiner. Applicants respectfully request reconsideration of the outstanding rejection and allowance of claims 9-14 and 16 in the present application. Such action is respectfully requested and is now believed to be appropriate and proper.

Claims 9-16 have been rejected under 35 U.S.C. § 102(b) as being anticipated by BOLDUAN (U.S. Patent Publication No. 2002/0178764).

Although Applicants do not necessarily agree with the Examiner's rejection of the claims on this ground, nevertheless, Applicants have amended independent claim 9 to clearly obviate the above noted ground of rejection in order to expedite prosecution of the present application. In this regard, Applicants note that BOLDUAN fails to show each and every element recited in the amended claims. In particular, claim 9, as amended, sets forth a method of controlling wash water circulation including, inter alia, "supplying wash water into a tub; circulating wash water supplied into a tub along a circulation channel by operating a pump when wash water is supplied up to a prescribed wash water level"; and measuring the discharging pressure of the pump while the wash water

is circulated; and further supplying water into the tub and stopping the operation of the pump for a prescribed period of time if the discharging pressure of the pump is less than a prescribed pressure”.

This amendment is fully supported by the specification, including the claims and drawings, and no prohibited new matter has been added. In particular, support for the amendments may be found at least in the figures and in the specification on page 20, line 22 through page 23, line 20.

Applicants' claimed invention provides a method of controlling wash water circulation for a washing machine, in which the operational reliability of the pump is improved and the water pressure of the wash water is accurately measured to provide an improved method of controlling wash water circulation. Additionally, the claimed method uses the minimum amount of wash water necessary for pump operation when the washing and rinsing is performed so that the amount of wash water that is consumed is decreased.

Applicants' claimed invention includes controlling the supply of wash water into the tub and operating the pump assembly based on the signal from the water level sensor such that the supply of water into the tub is restarted and operation of the pump assembly is stopped for a prescribed time when the water pressure of the water discharged from the pump assembly is less than a prescribed pressure after the pump assembly is operated to circulate the wash water. Therefore, in the present invention, the pump is operated when the wash water is supplied up to a predetermined wash water level. Subsequently, the wash water is circulated along the circulation channel 104 so that the wash water is sprayed to the tub 86, and thus the clothes become wet. Thus, as a result, the water level

of the wash water becomes lower than the predetermined wash water level, whereby the washing and rinsing efficiency is deteriorated and the operational reliability of the pump is deteriorated. Further, in the present invention, when the discharging pressure P of the water sensed by the water level sensor 102 is less than the prescribed pressure, which indicates that the water level is less than the predetermined water level during the washing and rinsing processes, the pump is stopped and the supply of the wash water is restarted. Accordingly, Applicants' claimed invention provides a method of controlling wash water circulation that prevents deterioration of washing efficiency and improves operational reliability of the pump.

The BOLDUAN patent publication discloses a method of controlling a washing machine. However, in the BOLDUAN method, the circulation pump 10 is stopped regularly for short time periods for sensing the static pressure of the wash water in the circulating line 9. If the static pressure is greater than the prescribed pressure, the safety valve 14 is closed and the emptying pump 15 is switched on such that the overflow of the wash water from the washing machine is prevented. Thus, the BOLDUAN patent does not disclose stopping the pump and re-supplying wash water when the water level is sensed to be lower than the predetermined water level in order to prevent the deterioration of the washing efficiency and the operational reliability of the pump as in Applicants' claimed invention. Accordingly, the BOLDUAN patent does not disclose a method including, inter alia, “supplying wash water into a tub; circulating wash water supplied into a tub along a circulation channel by operating a pump when wash water is supplied up to a prescribed wash water level”; and measuring the discharging pressure of the pump while the wash water is circulated; and further supplying water into the tub

and stopping the operation of the pump for a prescribed period of time if the discharging pressure of the pump is less than a prescribed pressure”, as set forth in amended claim 9.

Since the reference fails to show each and every element of the claimed device, the rejection of claim 9 under 35 U.S.C. § 102(b) over BOLDUAN is improper and withdrawal thereof is respectfully requested.

Applicants submit that dependent claims 10-14 and 16, which are at least patentable due to their dependency from claim 9 for the reasons noted above, recite additional features of the invention and are also separately patentable over the prior art of record based on the additionally recited features.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection, and an early indication of the allowance of claims 9-14 and 16.

SUMMARY AND CONCLUSION

In view of the foregoing, it is submitted that the present amendment is proper and that none of the references of record, considered alone or in any proper combination thereof, anticipate or render obvious Applicants' invention as recited in claims 9-14 and 16. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, consideration of the present amendment, reconsideration of the outstanding Official Action, and allowance of the present amendment and all of the claims therein are respectfully requested and now believed to be appropriate.

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so.

Any amendments to the claims which have been made in this amendment, which do not narrow the scope of the claims, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered cosmetic in nature, and to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed number.

Respectfully Submitted,
Tae Hee LEE et al.

A handwritten signature in black ink, appearing to read "Linda J. Hodge", written over a horizontal line.

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